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ABSTRACT

English language educators must be able to develop and exploit self-made computer assisted language learning (CALL) materials specific to their course syllabi and student needs. This paper explains that unless educators develop a bond with technology, they will not be able to use published CALL material or develop their own CALL material. Through education and hands-on experience, educators must come to terms with the power of the computer and its role in language learning. The paper discusses two dilemmas to overcome (acknowledging the impact of CALL on language learning and acknowledging fear associated with computers). It suggests a plan to train educators to develop CALL material suitable for their students language learning needs. The plan includes five units: guaranteeing a learning environment, understanding the educator and computer partnership, identifying the educators and programmers role in CALL, identifying who does what in the development of a CALL program, and ensuring evaluation throughout the creation and implementation process. The paper concludes that English language educators must take on a more active role in the CALL environment, and this training should make them able to integrate the computer into teaching and develop various CALL materials. (Contains 11 references.) (SM)

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The Cloud Around Development and Exploiting CALL Material

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ABSTRACT

The English language educator must be able to develop and exploit self-made CALL material specific to her/his course syllabus and her/his students' needs. The purpose of this paper is to show that unless the educator develops a bond with technology, s/he will not be able to use published CALL material or develop her/his own CALL material. Through education and hands-on experience, the educator must come to terms with the power of the computer and its role in language learning. A plan to train the educator to develop CALL material suitable for their students' language learning needs is suggested.

1. INTRODUCTION

It is important that the English language educator be able to develop and exploit the use of computer-assisted language learning (CALL) material to its maximum since he is the key person to integrate and implement technology into the curriculum at school or in university (Sabieh 2001b; 2000). However, it is important that the English language educator understands what the complete picture of technology in education consists of.

1.1. The Observation

For the past five years, Sabieh has observed how educators in the field of arts and sciences have done that. Eighty-five percent of the educators believed in the use of technology in education but, because 65 % did not know feel knowledgeable about the subject, they did not integrate it into their classes. However, in the cases that did, 83 % equated the use of technology in education to mean the creation of a website. In general, it was the creation of a website with discussion times and bulletin boards. They believed the creation of a website was a requirement for their course, and when they discussed technology in their classes, they did so in relation to resorting to the world wide web or their web site.

This is such a *limited* view of technology in education. It is a view that Sabieh does not accept as the only essential part of the nature of IT in education. Implementing IT in education is much more than that. To Sabieh, developing and exploiting CALL is the essence of implementing technology in the English language education setting. This, for the English language educator today, is where the challenge lies.

The literature acknowledges that computer-assisted-learning facilitates learning, yet at the same time, it acknowledges that there are few computer programs considered effective (Peters, 2000; Kulik & Kulik, 1991; 1987). Programs are criticized for replicating traditional classroom learning material and for creating activities that do not keep students on task or interactive (Collins, Hammond & Wellington, 1997). However, Sabieh advocates, computer program effectiveness is subjective and personal, criticism—printed or otherwise—of a program is an overgeneralization since it depends on students' needs and course or lesson objectives.

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1.2. The Challenge: The Cloud

A challenge exists for the English language educator. What must the educator do to implement IT in education of that is the case to date with published CALL material? In what way is the English language educator to integrate the computer in her/his learning/teaching environment? Moreover, should the English language educator develop her/his own CALL material or should s/he exploit readily available material? Should s/he resort to using authoring programs? Sabieh notes that the answers are not direct or clear-cut. The solution to the challenge does not allow for a variable to be added to the learning equation to result in effective student learning. It is a challenge that is unclear, that takes on many forms, that is dependent on its environment, and that continues to undergo personal change. It is a challenge that Sabieh synonymously parallels to a cloud. As such, the cloud continuously changes its form each time Sabieh questions the effectiveness of the whole technology issue in education.

1.3. Sabieh's Beliefs

Sabieh believes that the language educator, when considering the integration of CALL into the environment, must first acknowledge the students' needs and must consider the objectives of the curriculum being taught. With that at the forefront, the English language educator must be able to develop self-made CALL material and to exploit CALL material to meet the needs of her/his teaching/learning environment. However, for such a scenario to happen, the language educator must come to terms with two dilemmas. The first dilemma is to acknowledge the impact the technology has on language learning. The second dilemma is to overcome the inherent fear of the computer as a partner.

1.4. The Purpose & A Hypothesis

The purpose of this paper is twofold. The first purpose is to show that a bond with technology may develop to be able to use CALL material or to develop and exploit self-made CALL material once the English language educator acknowledges the existence of the two dilemmas and overcomes them. The second purpose is to advance a plan to train the English language educator to develop and evaluate CALL programs/lessons.

It is hypothesized that once the two dilemmas are over-come, a bond will be developed between the technology and the English language educator through knowledge acquisition and with hands-on experience. With training, the English language educator will be able to develop and exploit the CALL material.

2. THE TWO DILEMMAS TO OVERCOME

2.1. Dilemma 1: To Acknowledge Impact of CAL on Language Learning

To overcome the first dilemma is to acknowledge impact of computer-assisted learning has on language learning. The English language educator must perceive the computer as a partner. S/he must accept the computer as a delivery system, a motivator and a power tool in her/his teaching/learning environment (Sabieh, 1998). As a delivery system, the CALL material may be processed through the computer medium to allow for learning to take place at anytime. It links the students to the task and provides lesson or

program integrity continuously. As a motivator, the computer increases the students' interest through the prompts given by the programs. As such, the computer impact on the environment is seen as a powerful tool that strengthens the demand of the students' cognitive and language skills. They are expected to be active participant in the language learning process where increased interaction and degree of task involvement determine success in the English language acquisition. By individualizing the process and providing immediate feedback for the work done by the students, the computer empowers the students' in their endeavor to master the language. In understanding the impact, the English language educator is ready to overcome the second dilemma—the fear of the computer vis a vis the educator's role in the setting.

2.2. Dilemma 2: To Acknowledge Fear Associated with Computer

To overcome the second dilemma, the English language educator needs to overcome the inherent fear associated with the computer, and s/he must acknowledge possible ways to work with the computer to enhance her/his teaching and the students' learning. To begin with, the language educator may associate her/his fear of computer use to man's basic fear to use what is unknown, unfamiliar, and uncontrollable. Moreover, her/his fear may be linked to not being able to meet all the expectation the computer is to fulfill or to accept the power that is associated with the "new" technology. Furthermore, her/his greatest fear may stem from the fear of replacement. S/He fears being disposed of and replaced by an inanimate object that is man made, designed and programmed to perform. In general, such fears are common in all professions, not only among the English language educators. Without investigating the climate of IT in education, the educator seems willing to reject the very presence of the computer in her/his environment. Sabieh believes that such fears are developed through reputation, through lack of knowledge, and through unfounded notions. Through education, the fear will be combated, and the language educator will find ways to use the computer and CALL to enhance her/his teaching and the learning situation (Sabieh, 2001a)

2.3. Characteristics Considered to Work with the Computer

Integrating technology into education must have a defined purpose. Through that, the English language educator must first decide in which environment s/he is to use the computer. S/he may use the computer(s) in more that one teaching/learning environment. S/he may use it in the laboratory, the classroom, or the home setting. S/he may even have the computer(s) roam around the school on (a) cart(s). Second, s/he must decide which methodology to use with the computer. S/he may use it for individualized or cooperative group learning, or for remedial or mastery purposes. Third, s/he must also decide on the program activity types: the language educator may use drill & practice, tutorial, problem solving, simulation, games activity types or create activities using content free software. In brief, s/he must decide if s/he is to use computer-based, computer-mediated or computer-assisted-instruction software. Moreover, fourth, s/he must decide what program type to use in a specific learning/ teaching instance. There are commercialized programs, educational programs and reference resources as well authoring programs and self-developed programs. Finally, s/he must consider the type of student present in the learning environment. Students may be considered high, average or low achievers or they may be learning disabled or weak in certain areas of study or skills.

2.4. Outcome: The Bond Development

In short, it is only when the English language educator acknowledges the importance of overcoming the two dilemmas that s/he can experience the development of a bond. This, Sabieh stresses, can only realistically take place when education and hands-on experience are carried out in the form a professional training course.

3. SUGGESTED PLAN TO TRAIN ENGLISH LANGUAGE EDUCATOR: FIVE UNITS

Sabieh suggests a plan to train the English language educator. The plan includes five units. Each unit adds information to assimilate and accommodate making the training course a process of growth in which the language educator will become able to develop, evaluate, and exploit self-made and ready-made CALL programs. In brief, the plan is as follows: Unit one is developed to help the English language educator understand both the learning theories and conditions and the language learning theories and their implication to the computer-assisted-learning medium. Unit two is developed to help understand the role of educator and role of computer to create the strong partnership. Unit three is developed to help differentiate between the role of educator in the CALL-program design and the programmer/computer expert in the CALL program. Unit four is developed to help identify and implement steps to develop the CALL program or lesson; and Unit five is developed to ensure evaluation of CALL material.

3.1. Unit 1: To Guarantee a Learning Environment

In Unit one, the characteristics of the learning and language-learning theories and conditions are to be outlined in relation to the computer-assisted-learning environment. The purpose of this unit is to provide the trainee with an understanding of the mixture that exists to guarantee a learning environment for the students. Integrating the behavioral and cognitive approaches with the use of the computer to the study of the art of learning will inform the trainee that the environment provides opportunities of self-training, pacing, self-actualization, active participation, engagement, personal growth, motivation, encoding, storing and retrieving information, and recall based on the active memory-passive memory link. Likewise, the feedback received will be immediate, with opportunities of individualized and group instruction present, as well as integrative learning styles considered. Moreover, the trainee will acknowledge the value of the personal, individualized, subjective, passive and active learning environment the computer provides to ensure the language-learning growth. Along with that, ample language practice time to build confidence, esteem and competence is provided as is opportunity to overcome positive inter-language differences, positive effects of mistake and error making and fossil de-contextualization. The trainee becomes aware of the opportunities the programs allow for the conditions of learning to be developed from basic to higher order skills; the students are able to learn through signals, stimulus-response, chaining, verbal association, discrimination learning, concept learning, rule learning, and problem solving tasks.

Throughout the unit, and through out the whole training-session, the trainee is to be informed that s/he is expected to voice her/his comments, evaluations and opinions on the issue at hand.

3.2. Unit 2: To Understand Educator & Computer Partnership

In Unit two, the trainee is to be taught to understand the role of the educator and the role of the computer to accept the powerful partnership that is created in the environment. S/he is to understand that one role is not replacing the other role; the educator and the computer are to unite together bringing to the bond each of their strengths. The new role of the educator is to be outlined. For example, the trainee is to be told that the educator plans, evaluates, initiates, develops, informs, guides, adapts to changing demands, assists, stimulates and motivates, organizes, mediates between the computer and the student, facilitates instruction, is a resource consultant, encourages and supports the student in her/his learning, and decides on computer purpose. The computer role, on the other hand, performs at high speed, motivates, is accurate, is immediate in response, is repetitive, can be individualized or group instruction related, can pace, and manages information

3.3. Unit 3: To Identify Roles of Educator & Programmer in CALL

Unit three is to expose the trainee to the role of the educator and the role of the programmer/computer expert in the program design. The roles are to be differentiated to show that the program designing requires different mediums of expertise if it is to be effectively planned. The trainee is told that the educator is usually a person who possesses years of experience in English language teaching and researching. The computer expert or programmer, on the other hand, is a specialist in computer language and design (Alessi & Trollip, 1991).

3.4. Unit 4: To Identify Who Does What in the Development of a CALL Program

The trainee in Unit four is to be informed of the steps to develop the CALL program. S/he is also informed of what role in the design process is to be her/his and what role is to be the computer expert's. There are four steps involved in the development of the CALL program. Step one is to identify the purpose of creating a CALL program. Sabieh notes that it is the instructional objectives that lead to the program success. That is why the language educator must do the step. In step two, the plan of the computer assisted learning design is to be constructed. This is to be done primarily by the English language educator; however, the computer expert must interpret the English language educator's requirements (Beckett, McGivern, Reeder, & Semenova, 1999).

It is important that in this step and the following ones, the trainee consider the element of extrinsic as well as intrinsic motivation when designing the program.

In step three, the CALL program is to be constructed and implemented by the programmer. In step four, the program must be evaluated as a whole and along each step. It is to be accepted, modified or changed as is needed. This last step is to be done continuously throughout the design process by both the English language educator and the programmer.

Sabieh notes that the basic weakness of most CALL software may be due to the fact that the language educator's role is not being used and exploited properly. To what

degree do software designers use language educator expertise in the software design? Or to what degree do they use the English language educator expertise throughout the creation of the software package? Or to what degree do they ask the En expert to evaluate the software before it is out on the market?

Sabieh advocates that it is important that the English language educator develop specific objectives from general goals in mind, which will allow an understandable, evaluative, achievable and measurable outcomes with in specific time frames. In this way, the English language educator may outline the conditions, the cognitive, affective and the psychomotor domains addressed, and the leaning and language learning theories and conditions contemplated.

To do all this, the language educator must map-out the plan for the construction through flowcharts and branching to determine sequence of task and options, and through program modules. Her/his objectives must become learning tasks that must be interactive, meaningful, developed step by step, and considerate of the students' skills and knowledge. Her/his steps must be interrelated, must ensure variety in outcome, and must meet different students' needs.

Then, the computer expert is to design, construct and implement the English language educator's program intention.

3.5. Unit 5: To Ensure Evaluation Throughout the Creation & Implementation Process

Finally, Sabieh stresses that the important step in the overall process of software development is the ongoing formative evaluation process. It is important that evaluation becomes part of the decision-making process to allow for room to grow, to modify, and to change. This would allow the English language educator and computer expert to improve on the effectiveness of the program before it actually becomes functioning in the setting. Sabieh suggests that it is important that a pilot study be done in which students are actually partaking in the process of evaluation to get important feedback from the end-users in the future. This adds value in that the evaluation, understanding, and outcome can be assessed side-by-side for clarity, ease of use, mastery and performance, as are the instructional, cosmetic, program and syllabus adequacy in relation to the design, the procedure, the appearance, the efficiency and clarity of content (Maslowski & Visscher, 1999).

More importantly, the English language educator is expected to be able to evaluate any program for use. Such evaluation must be based on the educator's needs, the syllabus or lesson needs, and the students' needs. S/he must evaluate the content of the software or the tasks based on quality as opposed to quantity, appearance or cosmetic. The content should be evaluated for completeness, accuracy, and suitability to meet students' learning styles, age, level and skills. The material should be evaluated for clarity as well as structure, help features, presentation, level and type of interactivity, support resources, experience needed of educator and of student, and technical ease.

4. IMPLICATION OF INTEGRATING THE ENGLISH LANGUAGE EDUCATOR IN CALL PRODUCTION & EXPLOITATION

To sum up, the English language educator must take on a more active role in the computer-assisted-learning environment whether s/he is to create or exploit CALL material. Given the observations and the rationale behind the suggested training program for the English language educator, Sabieh advances three implications. One implication is that the English language educator may choose to study programming languages and carry out all steps by himself. However, the value of this, Sabieh advocates, is minimal. She notes that the English language educator who becomes too technical may loose the humanistic touch needed in the CALL material. Moreover, developing self- made CALL is time consuming and frustrating, and it may not result in creative and highly interactive work. A second implication has to do with group development teams as opposed to individual work. The value of brainstorming, ideas, interactivity, options for flowcharts and branching may provide the language educator and the programmer with more link assurance and evaluation across the whole CALL program. It also may be more time efficient to work in a team. A third implication is that the English language educator now understands that self-made technology environments are not only websites.

5. CONCLUSION

In conclusion, Sabieh believes that by the end of the training, the English language educator will be prepared to integrate the computer into the teaching/learning language environment with knowledge acquisition and hands-on experience. Moreover, the English language educator will be able to develop various CALL material based on syllabus, educator's need and students' needs, as well as be able to exploit the use of CALL to enhance the learning/teaching environment since the computer facilitates learning, specifically language learning. Furthermore, the English language educator is able to use and develop CALL programs for individual, group, remedial or mastery purposes.

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